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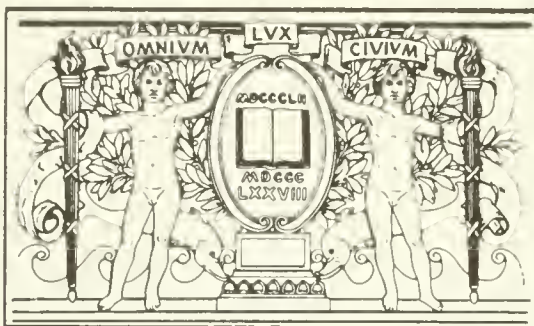
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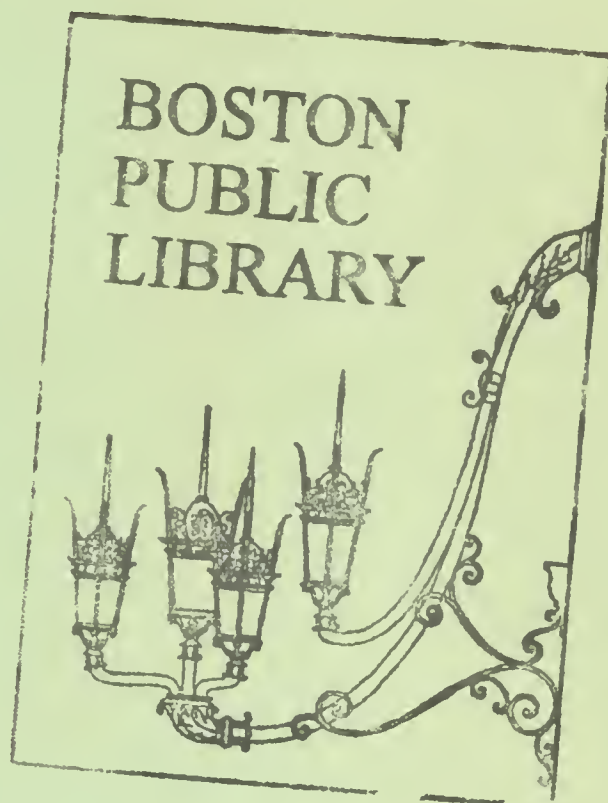




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# IMPLEMENTING THE DOWNTOWN BOSTON PARKING FREEZE

TECHNICAL MEMORANDUM NO. 12  
BOSTON PARKING STUDY



*Wilbur Smith and Associates*



IMPLEMENTING THE DOWNTOWN BOSTON PARKING FREEZE

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BOSTON PARKING STUDY

PREPARED FOR:

EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION  
COMMONWEALTH OF MASSACHUSETTS

and

DEPARTMENT OF PUBLIC WORKS  
COMMONWEALTH OF MASSACHUSETTS

BY

Wilbur Smith and Associates

June 13, 1973



TECHNICAL MEMORANDUM NO. 12 - BOSTON PARKING STUDY  
June 13th, 1973

TO: All Boston Parking Study Participants  
FROM: Herbert S. Levinson *HSL*  
SUBJECT: "Implementing the Downtown Boston Parking Freeze"

This memorandum was prepared at the request of the Commonwealth of Massachusetts to indicate ways that the Downtown Parking Freeze, suggested by the Governor, might be implemented. It specifically addresses the impacts of major new parking developments in the context of the Downtown Parking Freeze. It shows possible approaches to parking replacement, parking management, and parking enforcement. It provides a point of departure for the Commonwealth and City agencies as well as the overall community toward implementing the Downtown Parking Freeze.

We would like to acknowledge the assistance received from many agencies and individuals in preparing this memorandum. Comments and suggestions regarding the content would be appreciated.

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HSL:crb





## SUMMARY - FINDINGS AND DIRECTIONS

1. The Downtown Parking Freeze is consistent with the City and State's decision to encourage public transport travel to the Regional Core, particularly for work trips. It is reinforced by the ongoing Downtown Parking Study which indicates many garages are actually underutilized and which denotes a high incidence of illegal parking - about 5,000 at the time of maximum parking accumulation;
2. In response to the Downtown Parking Freeze, the Boston Redevelopment Authority is proposing to modify the existing zoning amendments for Boston Proper to consider all parking within or ancillary to any new development as a "conditional use". This zoning amendment will also remove the "bonus" system where a developer could increase the floor area if he exceeded the minimum parking requirement. (It is an alternative to the "maximum - minimum" parking zoning strategy suggested in Technical Memorandum Number 5, "Parking in the City Center - An Initial Overview".);
3. The South End Area should be incorporated into the Parking Freeze Area. The Freeze should provide full allocational flexibility within the South End, but it should not permit exchange of South End parking spaces for new spaces within the current Freeze Area;
4. There were 36,500 off-street parking spaces in the Parking Freeze Area in November, 1972;



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- . Parking facilities under construction  
(or completed since November, 1972)  
would result in about 39,400 spaces within  
this area by 1980 - a net gain of five  
per cent over 1972;
- . Planned parking facilities would result  
in about 44,850 spaces within this area  
by 1980 - a net gain of 23 per cent over  
1972; and,
- . Tentatively planned parking facilities  
would result in about 46,260 spaces in  
this area - a net gain of 28 per cent  
over 1972.

Thus, if all current parking plans were carried out, including South Station and Park Plaza, nearly 10,000 additional spaces - nearly a 30 per cent gain, would be realized. This gain would be in sharp contrast to the nature and intent of the Downtown Parking Freeze;

5. The South Station and Park Plaza developments are part of the City's plan to intensify the Regional Core. Transportation planning for both developments should be compatible with the overall strategy of reducing reliance on the automobile:

- . Both facilities are well located relative to existing transit services; both should rely heavily on public transport access;
- . Improved rapid transit should be given priority in transportation investment strategies. Ideally, parking should be limited to accessory and residential purposes;



6. The Park Plaza development will not increase downtown non-residential parking supply provided that at least 1,300 - 1,400 of the proposed 3,000 parking spaces are allocated to residential parking in basic lease agreements;
7. Development of an arena at South Station should be contingent on scheduling of major sporting events to preclude visitor arrivals or discharge during the P. M. peak-period (4:30 to 6:30 P. M.);
8. The proposed South Station development should continue to be included in the Downtown Parking Freeze Area. It would substantially increase Downtown parking supply unless steps are taken to eliminate an essentially equivalent number of spaces. Moreover, it would mainly serve commuters in sharp contrast to existing transportation policy;
9. The size of any proposed garage at South Station should depend on the number of spaces that can be eliminated through:
  - (a) Removal of curb parking;
  - (b) Closure of obsolete garages; and,
  - (c) More intensified enforcement of illegal parking.

In this context, a 2,000 space South Station garage could be built at this time, subject to parking space credits obtained as follows:

- . Elimination of 400 curb spaces in a 1,000 foot radius;
- . Improved enforcement of illegal parking such as by providing 30 additional meter maids;





- . A minimum doubling of existing parking fines and towing costs;
- . Improved procedures for dealing with parking violators;
- . An accelerated towing program - of at least double the current effort;
- . Elimination of 750 effective spaces by closing three functionally obsolete garages - Hayward Place, Kilby, and Fort Hill Square; and,
- . Utilization of approximately 1,300 spaces by non-peak Post Office parkers.

This parking capacity could be increased to 3,000 spaces if credit were to be given for all unused spaces in the three garages. Garage capacity should not exceed 3,000 spaces unless the Central Artery capacity is increased. Any additional spaces should be contingent upon measured road capacity increased on the approaches to South Station, and additional measures that are taken to achieve offsetting parking supply reductions in the Downtown "Parking Freeze Zone"; and,

10. The provision of improved parking management procedures in the City of Boston should be prerequisite to parking space credits received for the elimination of curb parking and/or illegal parking. This will require placing all parking (and traffic) functions within a single department.



## 1. THE CONTEXT

The "Downtown Boston Parking Freeze" was set forth in November, 1972, as part of Governor Sargent's Transportation Policy Statement. The Parking Freeze complemented the decision to improve regional transit services and to eliminate additional radial expressway construction within Route 128. It was endorsed by the City of Boston as consistent with the City's objective of limiting auto travel to the City center. There remains, however, the important task of maintaining the Freeze as downtown development continues.

### 1. Scope

This memorandum on "Implementing the Downtown Boston Parking Freeze" was prepared at the request of the Executive Office of Transportation and Construction. It sets forth suggested approaches to implementing the Downtown Parking Freeze as the Freeze relates to:

1. Current parking patterns, practices, and needs; and,
2. Anticipated changes in downtown land use.

It focuses on the basic question: "What are the impacts of the proposed Park Plaza and South Station developments on the Parking Freeze?". Implicit in this question are two closely related issues:

1. To what extent should off-street parking be provided at South Station and Park Plaza, and for whom; and,
2. To what extent would the additional parking supply at South Station and Park Plaza represent a net gain in Downtown parking space, and how can these gains be offset by various reductions in the existing supply.





The memorandum contains guidelines for assessing the impacts of these and other proposed new Downtown parking developments within the context of the Parking Freeze. It is based on data collected in the Boston Parking Study, as well as information obtained from the Boston Redevelopment Authority.

The memorandum:

1. Denotes the existing parking supply within the Parking Freeze Area;
2. Identifies the parking facilities under construction;
3. Assesses the implications of extending the non-residential Downtown Parking Freeze to encompass the South End;
4. Identifies "committed" and "planned" parking facilities and their relationship to the Parking Freeze;
5. Suggests potential "trade-offs" or exchanges of facilities, including the role of intensified parking enforcement; and,
6. Indicates prerequisite parking management policies.

In attempting to operationalize the Downtown Parking Freeze, it is clear that many corollary actions must be taken to encourage transit use. Transit service improvements including extensions into outlying areas, more effective Downtown distribution, and expanded fringe parking facilities are essential.

Within this context, many key questions associated with the Parking Freeze are being addressed as part of ongoing parking efforts. These include:

- . Coordination of parking supply changes with proposed transport improvements;
- . Modification of parking supply in subareas based on land-use changes, parking deficiencies, and transit availability;



- . Extension of the Parking Freeze to encompass large scale residential parking developments; and,
- . Extension, modification, or possible relaxation of the Parking Freeze as new parking management plans and street improvements are implemented.

## 2. Current Status

The Downtown Parking Freeze, as set forth in the Governor's Transportation Policy Statement, encompasses the area bounded by Massachusetts Avenue, the Massachusetts Turnpike, the Charles River, and the Inner Harbor (See Figure 1):

- . The Downtown Parking Freeze is consistent with City and State decisions to encourage transit travel to the core, particularly work trips. It is consistent with the November 30th, 1972, decision of Governor Sargent:
  - (a) not to build I-95 into Boston; and,
  - (b) to foster a \$1.9 billion 15-year transit modernization and extension program;
- . It is consistent with the peak-hour road capacity limitations on major approaches to Boston Proper. Although the number of persons accumulating daily in Boston Proper has remained the same for several decades (nearly 200,000), both parking supply and auto use have increased with attendant overloading of the downtown street system, extended peak-period congestion, and increased air pollution; and
- . Finally, the Freeze is reinforced by findings from the ongoing Parking Study. These include relatively high auto-use by employees of office buildings with good highway access and parking, an underutilization of many existing garages, and a high incidence of illegal parking.





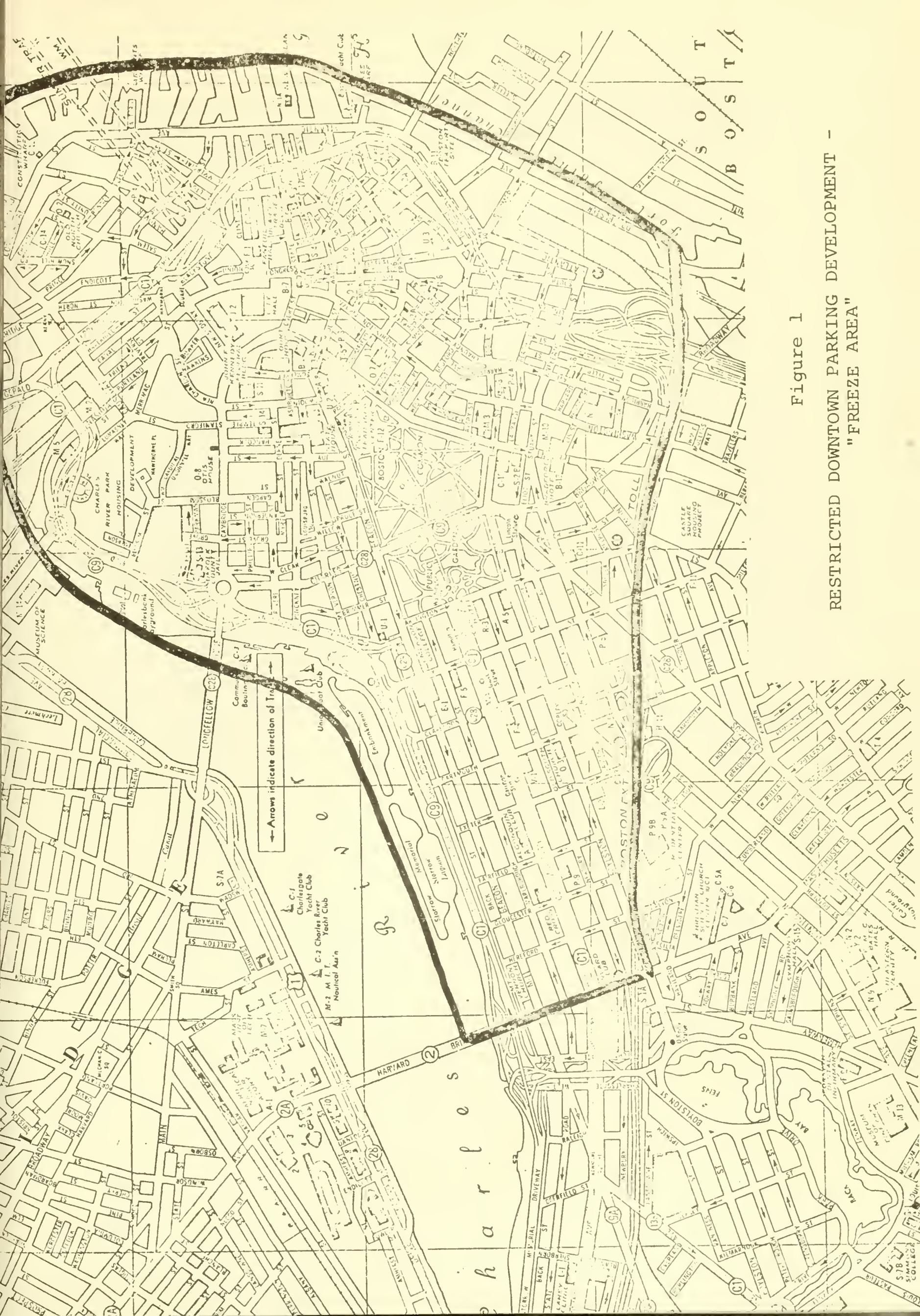


Figure 1

RESTRICTED DOWNTOWN PARKING DEVELOPMENT -  
"FREEZE AREA"





Recent governmental actions and current development decisions

appear contrary to the transit-oriented emphasis on the Regional Core. These include:

- (a) The provision of about 1,300 spaces for Post Office employees at South Station in an area served directly by the Massachusetts Bay Transportation Authority (MBTA), commuter rail lines, and express buses;
- (b) The proposed South Station and Park Plaza Parking Developments; and,
- (c) Columbia Point where the University of Massachusetts proposed 6,000 parking spaces and where a transit station was not constructed along the new Quincy MBTA Line.

3. Downtown Parking Study and Use

Parking supply in Downtown Boston as of November, 1972, is shown in Table 1. There were approximately 45,500 legal non-residential spaces in this area, 36,500 off-street and 9,000 curb.

- (a) Maximum Accumulation - Within the Parking Study Survey Area, there were approximately 36,000 non-residential parkers each day at the time of maximum accumulation. Approximately ten per cent represented illegal parkers. Approximately three-fourth represented long-term parkers (motorists parking for more than three hours). Approximately two-thirds represented employees.

Extending these characteristics to the overall Parking Freeze Area indicates some 34,000 vehicles legally parked at the time of maximum accumulation (12:00 Noon to 1:00 P. M.).

This represents approximately 75 per cent of the available space supply. An additional 5,000 cars were parked illegally at curbside spaces at the time of maximum accumulation.



Table 1

PARKING SUPPLY IN BOSTON PROPER - NOVEMBER, 1972

| <u>TYPE OF<br/>PARKING</u> | <u>PARKING<br/>STUDY AREA (1)</u> | <u>REMAINDER<br/>OF FREEZE AREA</u> | <u>TOTAL<br/>FREEZE AREA (2)</u> |
|----------------------------|-----------------------------------|-------------------------------------|----------------------------------|
| Off-Street                 | 33,458                            | 3,000                               | 36,500                           |
| Curb                       | <u>6,276</u>                      | <u>2,700</u>                        | <u>9,000</u>                     |
| TOTAL                      | 39,734                            | 5,700                               | 45,500                           |
| Residential                | 4,963                             | 1,000                               | 6,000                            |

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(1) Wilbur Smith and Associates Parking Study Area.

(2) As defined in Figure 1. Data are rounded.

SOURCE: Wilbur Smith and Associates field surveys.





The relative average usage of each category of space was as follows:

- (1) Legal curb spaces - over 90 per cent of capacity;
  - (2) Lots - approximately 90 per cent of capacity; and,
  - (3) Garages - 60 to 70 per cent of capacity.
- (b) Garage Utilization - Many garages were relatively poorly utilized with usage ranging from 35 to 40 per cent of overall capacity (See Table 2). These included both mechanical garages and garages with inadequate internal movement characteristics such as steep ramps, low ceilings, and parking configurations which inhibit easy access and egress. For example, Fort Hill Square, 53 per cent; Kilby Street, 35 per cent; and Hayward Place, 31 per cent.

#### 4. Problems

Discussions with various City officials, concerned with traffic and parking, identified the following problems relating to Downtown parking and to the Downtown Parking Freeze in particular:

- (a) In November, 1972, (and presumably in May, 1973) approximately 5,000 cars parked illegally at the time of maximum accumulation (12 Noon to 1:00 P. M.) in Downtown Boston. This high incidence of illegal parking suggests:
  - (1) An insufficient number of properly located legal parking spaces;
  - (2) Inadequate access or other deterrents to space usage; and,
  - (3) An inadequate level of parking enforcement;
- (b) Several of the larger hotels do not have nearby off-street parking facilities. This is typified by the Statler Hilton Hotel at Providence and Columbus Streets, where guest parking currently monopolizes legal and illegal spaces adjacent to the hotel including areas designated for loading facilities;



Table 2

UTILIZATION RATES OF SELECTED GARAGES RANKED IN ORDER  
OF LOWEST AVERAGE UTILIZATION LEVEL, 1972

| FACILITY                              | 10 AM - 6 PM |             |         | FULLTEST<br>UTILIZATION | PER CENT | PER CENT | FIRST<br>HOURLY<br>RATE | DAILY<br>RATE |
|---------------------------------------|--------------|-------------|---------|-------------------------|----------|----------|-------------------------|---------------|
|                                       | CAPACITY     | UTILIZATION | AVERAGE |                         |          |          |                         |               |
| Hayward Place (1) (2)                 | 640          | 139         | 22      | 200                     | 31       | \$ .60   | \$2.60                  |               |
| Kilby Street (1) (2)                  | 700          | 193         | 28      | 243                     | 35       | .50      | 2.00                    |               |
| Metropolitan District<br>Commission   | 300          | 97          | 32      | 115                     | 38       | Free     | Free                    |               |
| Danker & Donahue (1) (2)              | 500          | 176         | 35      | 188                     | 38       | .75      | 3.00                    |               |
| Fort Hill Square                      | 560          | 222         | 40      | 296                     | 53       | .50      | 2.00                    |               |
| Center Plaza                          | 525          | 236         | 45      | 335                     | 64       | 1.25     | 4.25                    |               |
| Shoppers Garage,<br>Beach Street      | 500          | 226         | 45      | 264                     | 53       | 1.20     | 2.25                    |               |
| Bedford Place (1) (2)                 | 660          | 311         | 47      | 429                     | 65       | .50      | 2.00                    |               |
| Causeway Street Lot (1)               | 150          | 72          | 48      | 86                      | 57       | .50      | 2.00                    |               |
| North Station Lot                     | 221          | 108         | 49      | 143                     | 65       | .75      | 1.50                    |               |
| Woolworth Garage                      | 900          | 443         | 49      | 562                     | 62       | 1.10     | 3.50                    |               |
| Fruit Street Garage                   | 794          | 413         | 52      | 520                     | 66       | 1.50     | 5.00                    |               |
| Massachusetts Rehabili-<br>tation Lot | 250          | 140         | 56      | 163                     | 65       | Free     | Free                    |               |
| Tufts (Oak Street) Lot                | 145          | 85          | 59      | 100                     | 69       | .50      | 2.50                    |               |
| Motor Mart                            | 900          | 532         | 59      | 586                     | 65       | N.A.     | N.A.                    |               |
| Coffman's Pi Alley                    | 600          | 402         | 67      | 460                     | 77       | 1.25     | 3.50                    |               |
| Howard Johnson's                      | 900          | 613         | 68      | 690                     | 77       | 1.00     | 2.00                    |               |

- (1) City Owned Garages.
- (2) Mechanical Garages.

SOURCE: Boston Parking Study, Wilbur Smith and Associates; Data collated by Boston Redevelopment Authority.



- (c) Downtown hospitals - viz the Boston City Hospital - produce considerable parking overflow onto surrounding streets and facilities;
- (d) There is a lack of adequate residential and student parking in Back Bay and Beacon Hill;
- (e) Current dissatisfaction exists in Boston's South End, where many parkers pre-empt curb spaces all day and walk a short distance to their employment Downtown locations; and,
- (f) According to the City, new office developments in the Financial Center have been in part predicated on expansion of additional parking in the South Station Environs.

Availability of transit in the Downtown area is recognized as critical to efficient CBD mobility and to parking policy implementation. If adequate transit is not provided in conjunction with parking restrictions, there would probably be a long-term decrease in the number of people working in and visiting Downtown. At present, transit service deficiencies exist in terms of capacity, accessibility, and quality of service - particularly in the Financial District.

#### 5. Proposed Zoning Amendment

In response to the Downtown Parking Freeze, the Boston Redevelopment Authority (BRA) is proposing to modify the existing zoning amendments for Boston Proper to consider all parking within or ancillary to any kind of new development as a conditional use<sup>(1)</sup>. The zoning amendment would also remove the "bonus" system where a developer could increase the floor area if he exceeded the minimum parking requirement. This is an alternative to the "maximum - minimum" Parking Zoning Strategy set forth in Technical Memorandum Number 5, "Parking in the City Center - An Initial Overview"<sup>(2)</sup>.

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(1) SOURCE: Information obtained from Boston Redevelopment Authority.

(2) Parking in the City Center - An Initial Overview, Wilbur Smith and Associates, November, 1972.





It has been approved by the BRA and has been presented to the City Zoning Board.

Conditional uses will only be granted if the BRA reports the following conditions have been met:

- (a) Access to and egress from the off-street parking facility will not increase traffic congestion to a significant degree on abutting streets or on the expressway system, nor will it interfere with heavy pedestrian traffic flows;
- (b) The location of an off-street facility for more than 30 motor vehicles has reasonably direct access to major arterial streets on highways;
- (c) In the case of a parking facility for more than 30 vehicles, the facility either:
  - (1) serves a traffic demand not adequately provided for by public transit;
  - (2) replaces an existing off-street facility which interferes with traffic flow or public safety; or,
  - (3) is accessory to a use which by its nature does not contribute significantly to traffic flow during peak commuting hours; and,
- (d) A parking garage, particularly its street level design and use, is consistent with plans for the area surrounding the facility.

These measure (or their equivalent) appear to be steps in the right direction. It is assumed that they would achieve long-term benefits which outweigh any short-term inequities that might result.



## II. IMPACTS OF PROPOSED CHANGES IN PARKING FREEZE LIMITS AND DOWNTOWN PARKING SUPPLY

The Downtown Parking Freeze exempts parking under construction or contractually committed, and it exempts residential parking. It provides full allocational flexibility to allow for major downtown development. Current downtown parking proposals were reviewed within this context.

### 1. Parking Space Supply Changes - 1972 - 1980

Estimates of future Downtown off-street parking supply are shown in Table 3 and are summarized in Figure 2. These estimates identify the anticipated changes in Downtown parking supply from 1972 - 1980 resulting from:

- . Facilities under construction - Case I, (39,400 spaces);
- . Planned Facilities - Case II, (44,850 spaces);
- . Possible Future Facilities - Case III, (46,260 spaces); and,
- . Note - the 1972 parking supply was 36,500 spaces.

Table 4 details the net changes in Downtown parking supply resulting from developments at:

- . Park Plaza;
- . South Station; and,
- . West End Office Towers.

#### (a) Case I - Facilities Existing in November, 1972, Plus Facilities Under Construction or Completed Since November, 1972:

- . Approximately 3,800 parking spaces in the "Parking Freeze" Area will become available during 1973. These include the recently opened 1,800 space John Hancock Mutual Life Insurance Company Garage and the 900 space Tufts Medical Center Garage; and the One Beacon Street Garage, State House Garage, and Shawmut Bank Garage under construction;





- . A net reduction of 900 lot spaces between 1972 and 1980 is anticipated as new buildings are constructed on existing lots and as demolitions create new lots; and,
- . These changes will result in 39,400 spaces in the Downtown Parking Freeze Area in 1980 - a net gain of 2,900 spaces or five per cent over the 36,500 spaces found in November, 1972.
- (b) Case II - Facilities Existing in November, 1972, Plus Facilities Under Construction or Planned:
  - . Approximately 7,300 spaces are planned in addition to the 3,800 spaces currently under construction. These figures include 5,000 spaces at South Station, 1,600 spaces at Park Plaza, and 680 spaces at the West End Office Towers<sup>(3)</sup>;
  - . Approximately 2,700 spaces would be eliminated between 1972 and 1980 largely as a result of new developments and anticipated land-use changes which eliminate open lot parking; and,
  - . This condition would result in about 44,850 spaces in the Downtown Parking Freeze Area - a net gain of approximately 8,400 spaces, 23 per cent, over the 36,500 spaces found in November, 1972.
- (c) Case III - Facilities Existing in November, 1972, Under Construction, Planned, or Tentative:
  - . An additional 1,600 spaces are being tentatively considered for development. These include approximately 600 spaces at the Common Garage, expanded 400 at the South Cove Development, 400 at E-8 Development, and 200 in the contemplated Exeter-Boylston redevelopment. This results in a total addition of 12,600 spaces since November, 1972;
  - . An additional 190 spaces would be eliminated over Case III, bringing the total spaces eliminated since November, 1972, to 2,920; and,

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(3) The size of the South Station Garage has yet to be finalized. Preliminary planning has shown its capacity ranging from 3,500 to 5,000 spaces.



Table 3

ANTICIPATED CHANGES IN OFF-STREET  
PARKING SUPPLY - 1972 - 1980

|          | <u>PARKING CONDITION<br/>AND CATEGORY</u>                      | <u>PARKING<br/>STUDY AREA</u> | <u>PARKING<br/>FREEZE AREA</u> |
|----------|--|-------------------------------|--------------------------------|
|          | SPACES EXISTING AND UNDER CONSTRUCTION:                        |                               |                                |
| CASE I   | Existing, 1972   | 33,500                        | 36,500                         |
|          | Increase to 1980 <sup>(1)</sup>                                | 3,800                         | 3,800                          |
|          | Removed to 1980 <sup>(2)</sup>                                 | -900                          | -900                           |
|          | Net change to 1980   | <u>2,900</u>                  | <u>2,900</u>                   |
|          | SPACES, 1980   | 36,400                        | 39,400                         |
|          | SPACES EXISTING, UNDER CONSTRUCTION, AND PLANNED:              |                               |                                |
| CASE II  | Existing, 1972   | 33,500                        | 36,500                         |
|          | Increase to 1980   |                               |                                |
|          | . Spaces under construction                                    | 3,800                         | 3,800                          |
|          | . Planned spaces <sup>(3)</sup>                                | 7,280                         | 7,280                          |
|          | Removed to 1980 <sup>(4)</sup>                                 | -2,730                        | -2,730                         |
|          | Net change to 1980   | <u>8,350</u>                  | <u>8,350</u>                   |
|          | SPACES, 1980   | 41,850                        | 44,850                         |
|          | SPACES EXISTING, UNDER CONSTRUCTION, PLANNED, AND<br>TENTATIVE |                               |                                |
| CASE III | Existing, 1972   | 33,500                        | 36,500                         |
|          | Increase to 1980   |                               |                                |
|          | . Spaces under construction                                    | 3,800                         | 3,800                          |
|          | . Planned spaces   | 7,280                         | 7,280                          |
|          | . Tentative spaces <sup>(5)</sup>                              | 1,600                         | 1,600                          |
|          | Removed to 1980 <sup>(6)</sup>                                 | -2,920                        | -2,920                         |
|          | Net change to 1980   | <u>9,760</u>                  | <u>9,760</u>                   |
|          | SPACES, 1980   | 43,260                        | 46,260                         |

- (1) Spaces under construction in 1972 including those open to the public in 1973, such as the 1,800 space John Hancock Garage.
- (2) Estimated net loss of lot spaces resulting from demolitions and new building construction.
- (3) South Station (5,000) + Park Plaza (1,600) + West End Office (680).
- (4) Net removal in Case I (900) + removals at Park Plaza (ca. 1,830).
- (5) Exeter/Newbury/Boylston (200) + C-4 South Cove (400) + Commons Garage Extension (600) + Zone E-8 (400).
- (6) Case II (2,730) + removals at Zone E-8 (190).

SOURCE: Estimates by Wilbur Smith and Associates based upon surveys in 1972 and Boston Redevelopment Authority data for developments to 1980.



Table 4

CURRENTLY PLANNED PARKING SUPPLY CHANGES IN  
THE BOSTON STUDY AREA  
1972 - 1980  
(Excludes Residential Parking)

| <u>ITEM</u>                          | <u>PARK PLAZA</u>    | <u>SOUTH STATION</u> | <u>WEST END<br/>OFFICE TOWER</u> | <u>TOTAL</u>         |
|--------------------------------------|----------------------|----------------------|----------------------------------|----------------------|
| Parking space<br>increase            | 1,600 <sup>(1)</sup> | 5,000 <sup>(2)</sup> | 684 <sup>(2)</sup>               | 7,284                |
| Parking space<br>decrease:<br>(3)    |                      |                      |                                  |                      |
| Curb                                 | 67                   | 30                   | 0                                | 97                   |
| Off-street                           | <u>1,664</u>         | <u>70</u>            | <u>0</u>                         | <u>1,734</u>         |
| Subtotal                             | 1,731                | 100                  | 0                                | 1,831 <sup>(4)</sup> |
| Net change<br>in spaces<br>(rounded) | -130                 | +4,900               | +680                             | +5,450               |

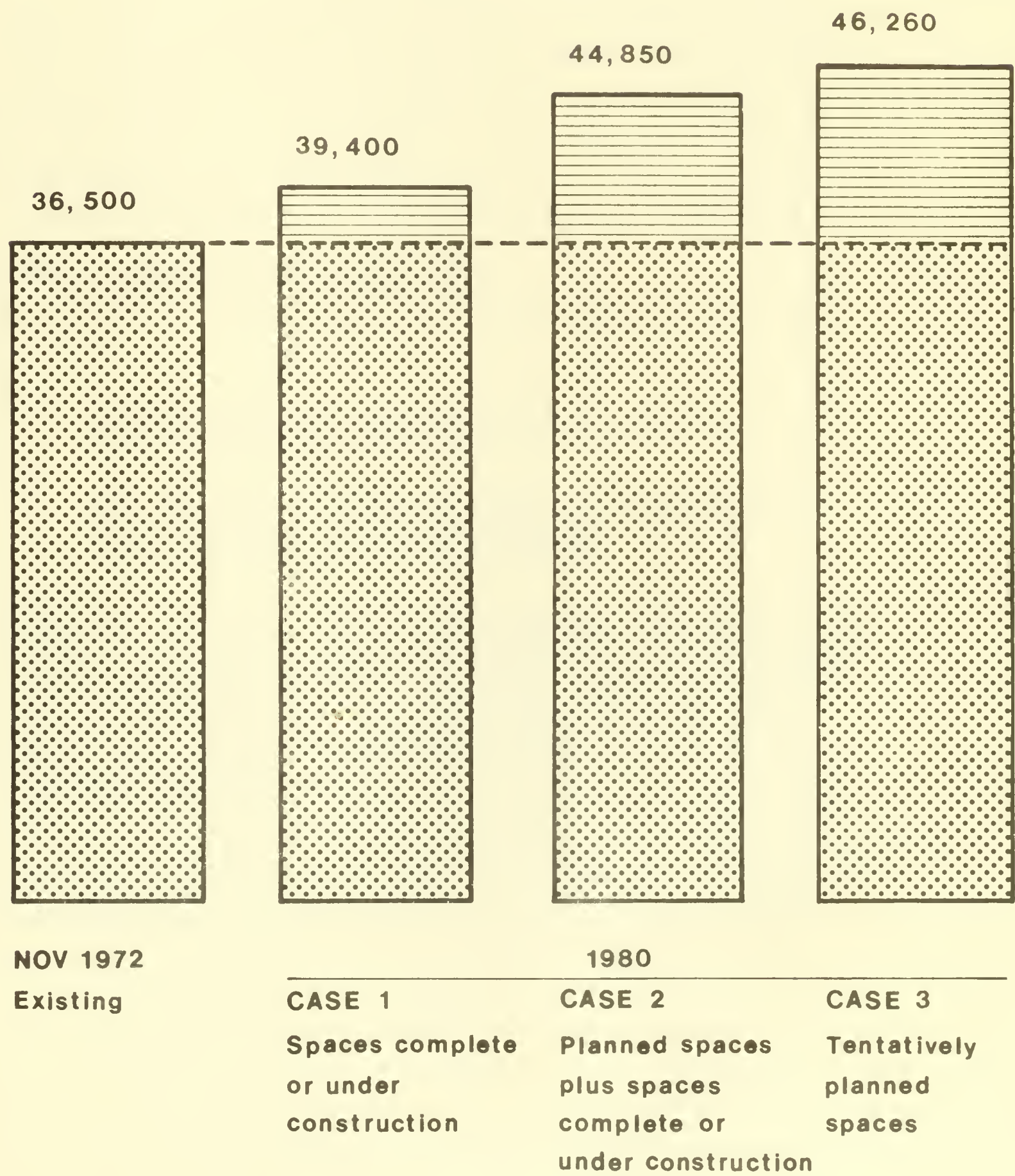
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- (1) BRA's provisional estimate. Based upon construction of 3,000 space garage, of which 1,400 spaces will be for residential use--Stage I.
- (2) BRA's provisional estimate.
- (3) Wilbur Smith and Associates estimates.
- (4) In addition to the above, it is estimated approximately 900 spaces will be lost due to redevelopment of various minor parking lots.





# ANTICIPATED 1980 OFF-STREET PARKING SPACES-DOWNTOWN BOSTON

FIGURE 2





- . This condition would result in about 46,260 spaces in the Parking Freeze Area, a net gain of nearly 10,000 spaces, 28 per cent over the 36,500 spaces found in November, 1972.

It is clear that if current parking plans are realized, the Parking Freeze would exist in name only.

The net result would be a 30 per cent increase in parking without attendant increases in road capacity. This increase is not internally consistent with transit investment decisions.

The Downtown Parking Freeze covers the entire Downtown area. Thus, it is logical to look at the total impacts of the Parking Freeze rather than to assess parking developments on a project-by-project basis. It may be appropriate to expand parking supply in districts with inadequate transit service and to reduce parking supply in areas that are well serviced by public transport.

## 2. Freeze Extensions and Exemptions

Two areas of special concern emerge from the preceding analysis:

- (a) Extension of the Downtown Parking Freeze to include the South End; and,
- (b) The issue of whether the South Station development should be exempted fully or partially from the Downtown Parking Freeze.

South End - The residential character of the South End should be retained. The parking studies indicated that approximately 4,000 downtown-destined employees parked in the South End and other outlying areas and walked into the Downtown Parking Freeze Area each day and, apparently, found the spaces convenient in terms of access and/or cost. This pattern and the prospects of increased commuter parking in the South End resulting from the Parking Freeze have increased the community's concern over traffic impacts on the environment. Accordingly, the Boston Redevelopment Authority desires to extend the non-residential Parking Freeze to include this area, thereby extending the Freeze to all of Boston Proper.





The extension of the Parking Freeze to the South End should be considered as a logical early action. It should allow full allocational flexibility within the South End. It should not permit exchange of South End curb (or off-street) spaces for new spaces within the current Freeze limits. It should be complemented by provision of resident parking stickers and attendant changes in curb parking regulations and enforcement. The "priority-use" of curb parking by residents in adjacent areas could establish a pattern for the management of residential curb parking throughout the City.

South Station - The City of Boston has suggested that the South Station Area might be exempted from the Parking Freeze and/or that the additional parking might be considered as replacement of illegal parkers. They indicate that many nearby office buildings were constructed on the assumption of additional parking at South Station, and that the spaces would alleviate existing space deficiencies.

Additional parking at the South Station intercepts motorists on the edge of the CBD. Direct access to the Massachusetts Turnpike and to the Central Artery, if provided, could minimize reliance on local streets. The project would also provide park-and-ride for bus and train passengers. Approximately 1,300 spaces would be used by each of several shifts of Post Office employees who arrive and leave in off-peak periods<sup>(4)</sup>. (These employees would also park at night when events take place at the Arena.)

On the other hand, most parking spaces would be remote from the Downtown retail area. The long walking distances involved would make them conducive only to long-term commuter parking. They would represent an expansion commuter parking supply in an area well served by commuter rail, rapid transit, and express bus service and in an area where existing highway capacity is limited.

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(4) Preliminary estimate by the Boston Redevelopment Authority. Detailed information on employee populations and working shift characteristics was not available.



Moreover, fringe parking facilities some six to ten miles out from the CBD along transit lines have compelling advantages. They reduce radial highway demands to the City Center; they reduce air pollution levels; and they reinforce transit riding rather than compete with it. Viewed in a broad context, it seems more reasonable to view South Station as "replacement" parking for Downtown Boston. Thus, from a regional transportation perspective, it should continue to be included within the Downtown Parking Freeze Area.

3. Relation of Downtown Parking Freeze to Downtown Development Proposals

Proposed additions to Downtown parking largely stem from major new developments such as Park Plaza and South Station. The City considers these projects important to its economy and continued growth, and to its long standing objective of intensifying the Regional Core. It views parking as an integral part of their development, despite their proximity to major transit services.

Both projects should be viewed as major land-use developments which have important catalytic effects on adjacent areas. Both will change the character, intensity, and value of the land they occupy. Both will attract sizable daytime populations which will rely heavily on public transport. In these respects, the projects would be similar to New York City's Grand Central Station and Philadelphia's Penn Center developments.

Transport planning to both projects should, therefore, capitalize the availability of public transport services, with high priority given to transit service improvements. Ideally, parking should be limited to accessory and residential purposes. Neither project should produce a net gain in non-residential parking if it is to be consistent with the Downtown Parking Freeze policy.



- . Current plans for the Park Plaza development do not present problems with regard to maintaining the Downtown Parking Freeze. A net decrease of approximately 130 non-residential spaces is anticipated between 1972 and 1980. Beyond 1980, an increase in commercial parking spaces is anticipated. It should be pointed out that Park Plaza is well located with respect to major rapid transit lines and that it would be reasonable to consider provision of only residential and accessory parking.
- . The South Station development anticipates approximately 3,500 to 5,000 new spaces which will significantly add to the existing Downtown Parking supply. Most of these spaces will represent a net gain in parking unless they are offset through combinations of an active parking replacement program and a more effective parking enforcement program. The viability of these spaces will depend upon capacities of adjacent highway facilities, the extent to which parking in this area can accommodate persons oriented to other locations in the City, and the extent to which other nearby spaces are phased out.

Park Plaza - Current plans call for Park Plaza to be developed in two stages. Stage I will be completed in three phases over a period of seven years, to 1980, while Stage II will continue beyond that date (See Table 5).

- . In Phase I, 400 luxury apartments are planned, together with a 1,600 space garage of which approximately 300 spaces would be designated for residential use. At the same time, approximately 1,200 spaces would be eliminated in existing lots and alongside curbs;
- . In Phase II, there would be no construction of parking; and,
- . In Phase III, 1,000 luxury residential units and 250 moderate income residential units are planned, together with a 1,400 space parking garage of which about 1,100 spaces would be for residential use, leaving 300 spaces for commercial use. At the same time, it is anticipated that approximately 530 spaces would be lost as a result of new construction.







Table 5

ANTICIPATED PARK PLAZA PARKING CHANGES  
STAGE I (1973 - 1980) APPROXIMATE<sup>(1)</sup>

| PHASE I  | TOTAL<br>PARKING | NEW PARKING            |                       | SPACES<br>REMOVED    | NET CHANGE<br>COMMERCIAL |
|--|------------------|------------------------|-----------------------|----------------------|--------------------------|
|  |                  | RESIDENTIAL<br>PARKING | COMMERCIAL<br>PARKING |                      |                          |
| 00 luxury apart-<br>ments; plus<br>commercial area                                 | 1,600            | ( 300)                 | (1,300)               | 1,200 <sup>(2)</sup> | +100                     |
| PHASE II   |                  |                        |                       |                      |                          |
| No Elimination or Construction of Parking  |                  |                        |                       |                      |                          |
| PHASE III  |                  |                        |                       |                      |                          |
| 0,000 luxury<br>residential units;<br>50 moderate in-<br>come residential<br>units | 1,400            | (1,100)                | ( 300)                | 530                  | -230                     |
| TOTAL  | 3,000            | (1,400)                | (1,600)               | 1,730                | -130                     |
| MINIMUM<br>ALLOCATION  | 3,000            | (1,300)                | (1,700)               | 1,730                | - 30                     |

1) Stage II will take place after 1980.

2) Motor Mart, 900; Stuart/Eliot Lot, Boston Gas Lot, Avis Rent-A-Car, 103; and Park Square, 1,200.



In total, of the 3,000 planned spaces by 1980, approximately 1,600 non-residential spaces would be constructed. However, the corresponding loss of 1,730 existing spaces would result in a net decrease of 130 non-residential spaces. (Some fluctuations in these numbers may result since planning is not yet finalized.) Thus, Park Plaza would have a negligible effect upon the Downtown parking supply up to 1980.

Assessment of likely changes beyond 1980 in relation to Stage III should be made when more detailed plans become available, and as the Downtown Parking Freeze is periodically re-assessed in relation to road and transit improvements. Preliminary analyses by the BRA indicate that Stage III would provide a 1,300 space garage, which could be partially offset by eliminating about 700 spaces in the Shoppers Garage and nearby lots. This implies a need to eliminate some 600 spaces to maintain the Freeze - a need underscored by the proximity of transit service.

Thus, the parking demand for Park Plaza is essentially residential or replacement parking. Steps should be taken in the planning review stage to officially designate at least 1,300 - 1,400 of the 3,000 spaces for residential parking and to incorporate this provision in the basic lease agreement.

South Station - The South Station development, bounded by Summer Street, Atlantic Avenue, and Dorchester Avenue, is in the initial stage of development. Current proposals include a Post Office, office space, hotel, and retail facilities served by approximately 3,500 to 5,000 parking spaces. In addition, plans are underway for an 18,000 seat arena to the southwest of the main project. Special public spaces, pedestrian areas, and pedestrian movement systems from the north end of the complex toward the City Center are being planned. The South Station Area will be a transportation focus; a new bus terminal will complement existing rapid transit and rail passenger and freight facilities.

The parking spaces will assist in accommodating demands from the Federal Reserve Bank currently being constructed to the north of the South Station project and several other developments, including the Herald-American, Blue Cross, and Keystone Buildings.



The project will add dramatically to Boston's skyline as well as to its economic base. It underscores the need for improved transit accessibility to the Regional Core:

1. Capacity Considerations - The proposed parking garage would be the largest single parking facility in the Boston Area except for those at Logan Airport. It would be one of the largest - if not the largest - Downtown parking garage in the United States. The proposed 5,000 spaces would generate peak-hour demands of 2,200 - 2,600 cars, the equivalent of two freeway lanes, or five arterial street lanes<sup>(5)</sup>. These considerations, in view of the present capacity constraints on the Central Artery and no additional Harbor tunnel capacity, pose serious questions regarding the size and scale of the facility. The present capacity constraints on the Central Artery limit the practical size of a garage at South Station. Even with direct connections to the Artery and to the Massachusetts Turnpike, it does not appear desirable to build more than 2,500 to 3,000 spaces, of which about 1,300 are used by "non-peak" Post Office parkers<sup>(6)</sup>, unless the Central Artery is reconstructed and its capacity is increased.

An 18,000 seat Arena in the South Station Environs could result in traffic volumes of 3,000 to 4,000 cars per hour immediately prior to and after major sporting events. These loads could cause major breakdown of existing streets and highways if they occurred during peak-hours. Accordingly, it is essential that no events begin or end during the 4:30 to 6:30 P. M. peak-period. Evening events should be encouraged since parkers could more effectively utilize the existing Downtown parking supply.

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(5) 60-to-70 per cent of (5,000 - 1,300).

(6) This corresponds to a maximum peak-hour movement of 70 (3,000 - 1,300) or 1,200 vehicles.





2. Parking Freeze Considerations - Current BRA plans for the South Station Garage call for the elimination of some 100 spaces. Thus, the garage would involve a gain of some 3,400 - 4,900 spaces. Consideration could be given to the following approach in developing parking space credit for the proposed South Station Garage (See Figure 3):

- (a) Prohibiting all curb parking within a 1,000 foot radius of the South Station would eliminate 400 spaces;
- (b) Closing of three obsolete, poorly located, and lightly used garages would eliminate 1,900 spaces of which 750 are actually used:

- (1) Hayward Place - 640 spaces,  
(200 maximum use);
- (2) Kilby Street - 700 spaces,  
(250 maximum use); and,
- (3) Fort Hill Square - 560 spaces,  
(300 maximum use).

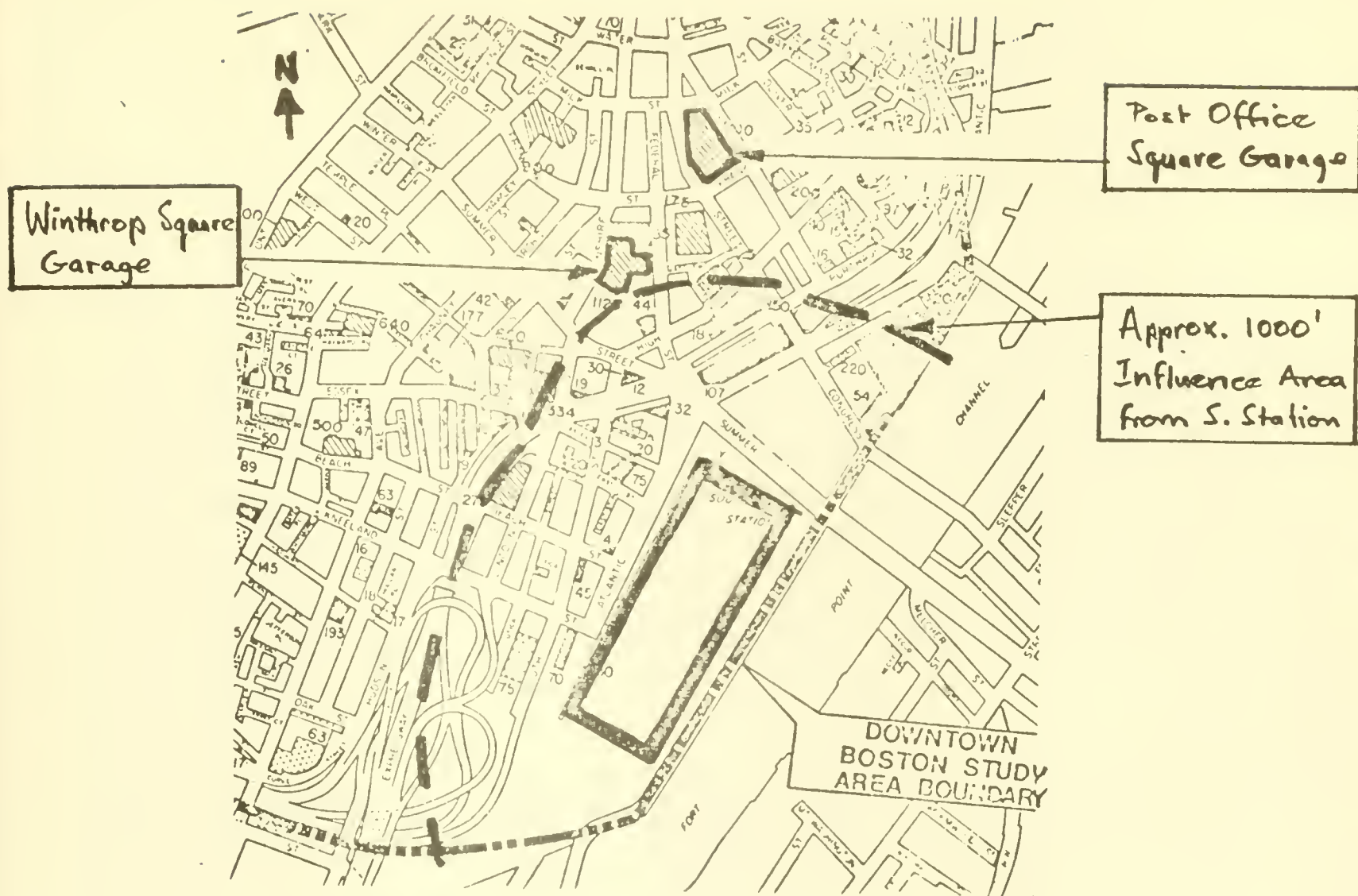
Because these garages are poorly utilized, their replacement with an equivalent number of spaces at South Station would actually result in a net increase in the total number of Downtown parkers;

- (c) Provision of 30 additional meter maids as proposed by the City Department of Traffic and Parking and the Mayor would substantially improve enforcement. These meter maids, if provided, should help achieve a 50 per cent reduction in illegal parking in the Financial District, the equivalent of 400 to 500 parking spaces. (These additional meter maids were not approved by the City Council.); and,
- (d) Improved parking management and an optimum enforcement program which includes additional meter maids, a minimum doubling of parking fines, an accelerated towing program of at least double the present effort, increased towing costs, and computerization of violator-recall procedures might reduce violations throughout Downtown Boston by 50 per cent - some 2,500 spaces. Other portions of the Downtown may need or want to add off-street



Figure 3

## SOUTH STATION - PARKING ASPECTS

POSSIBLE ADJUSTMENTS OF PARKING SPACES  
IN RELATION TO SOUTH STATION GARAGE

| ITEM  | 5,000 SPACE<br>GARAGE | 3,500 SPACE<br>GARAGE | 2,000 SPACE<br>GARAGE |
|---|-----------------------|-----------------------|-----------------------|
| 1. Eliminate curb parking   | 400                   | 400                   | 400                   |
| 2. Close three obsolete<br>garages (effective<br>spaces eliminated)               | 750                   | 750                   | 750                   |
| 3. Improve enforcement<br>(i.e. provide 30<br>additional meter maids)             | 500                   | 500                   | 500                   |
| Subtotal  | 1,650                 | 1,650                 | 1,650                 |
| NET GAIN IN SPACES  | 3,350                 | 1,850                 | 350                   |
| 4. Additional credit from<br>improved parking manage-<br>ment (850 - 500)         | 350                   | 350                   | 350                   |
| NET GAIN IN SPACES  | 3,000                 | 1,500                 | 0                     |
| NET GAIN IN SPACES ASSUMING<br>CREDIT FOR ALL SPACES IN<br>THREE OBSOLETE GARAGES | 1,850                 | 350                   | -1,100                |





parking. Thus, not more than one-third of this total should be credited to the South Station Garage. This implies a maximum parking space reduction as a result of improved enforcement and collection efficiency of 850 spaces, or (350 spaces in addition to those shown in Item C).

The preceding measures would permit development of a 2,000 space garage at South Station. This capacity could be increased to 3,000 - 3,300 spaces, assuming that credit is given for all unused spaces in the three garages that would be closed. Giving parking space credit for only 750 spaces also allows for the contingency that - in view of the basic lease agreements - it may not be possible to actually eliminate all of these facilities before South Station is built<sup>(7)</sup>. It is probably reasonable to give parking space credit for some intermediate number between 750 and 1,900 spaces.

3. Parking Garage Elimination - The BRA has suggested the possible removal of obsolete parking facilities to offset new spaces added. Their criteria for garage elimination include low utilization, age of structure, poor physical design, poor street access, proximity to transit, availability of other parking, poor location with regard to parkers' destinations, and potential re-use value of site. These factors suggested closing the Hayward Place Garage, Kilby Street Garage, and Fort Hill Square. All are mechanical and underutilized garages.

Two "problem garages" exist within this context - the 900 space Post Office Square Garage and the 1,100 space Winthrop Square Garage. Both garages are utilized to their capacity as a result of low all-day rates (\$1.45 to \$1.50). However, both sites are poorly located with respect to street access, and both sites could be far more intensively utilized for office development. Winthrop Square Garage deters development of a pedestrian mall around the former Record-American building; Post

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(7) Hayward Place, for example, has a 40-year lease.





Office Square has severe street congestion because its all-day rate only starts at 8:00 A. M. and cars wait to avoid paying higher rates.

While theoretically, it would be desirable to "trade" the capacity of one or more of these facilities for parking capacity at South Station, both municipal garages have 40-year leases<sup>(8)</sup>. A more realistic approach, therefore, would be for the City to adjust the rates in both garages to more truly reflect the true economic value of parking. All-day parking rates of not less than \$3.00 per day should be established. Closure of these facilities might eventually come about either as expansion of parking at South Station or as exchange for new, better located and designed parking facilities. Ideally, the leases should be purchased by the City or State.

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(8) According to Boston Redevelopment Authority, the City Legal Department judges that although the 40-year leases contain no operating requirements, it should be possible with Home Rule Legislation to retroactively introduce such requirements.



### III. SOME PARKING MANAGEMENT AND ENFORCEMENT ASPECTS

#### 1. Overview

The need for improved management of Boston's parking facilities has been long recognized<sup>(9)</sup>. There is need for unifying policy, control, and management measures in order that parking supply, operation, and pricing are consistent with development patterns, user needs, and transport investment decisions; and that divergent views are effectively coordinated.

The provision of improved parking management procedures in the City of Boston should be prerequisite to parking space credits received for the elimination of curb parking and/or for illegal parking:

- (a) There is need for a single municipal parking agency in Downtown Boston. This will involve placing all parking (and traffic) functions under one agency - via the Boston Traffic and Parking Department and the elimination of the Real Property Board from all parking matters. The Agency should exercise control over public and private parking. It should be able to regulate rates and operating procedures (at least for municipal facilities), license private off-street facilities, review parking designs, and plan and design new facilities including site acquisition;
- (b) The rates in core garages should be modified to discourage all day parkers, especially Post Office Square and Winthrop Square Garages. In this context, short-term management contracts are preferred to long-term leases;

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(9) See Technical Memorandum Number 5, "Parking in the City Center - An Initial Overview", Wilbur Smith and Associates, November, 1972.



- (c) Prohibition of parking in the aisles and on-street near parking facilities should be actively encouraged. Although licenses are based on capacity, almost all lots overload, block, or constantly interrupt traffic;
- (d) Existing parking covenants regarding rates and operating practices should be more effectively enforced. Maintenance of City-owned garages including better lighting and larger stalls should be improved; and,
- (e) Garage operating practices should be improved. Parking fees, for example, should be collected outbound rather than inbound to avoid traffic back-ups onto streets.

## 2. Enforcement Opportunities and Directions

Analyses of existing parking enforcement practices underscore the need for improved enforcement:

- (a) The high incidences of illegal parking stems from lack of properly located off-street parking and effective enforcement; and,
- (b) The number of parking violators' tags issued exceeds the amount that is potentially recoverable in fines.

Improving Collection Efficiency - Reducing illegal parkers represents a potential reduction in parking supply which might be related to off-street parking increases. It also allows more effective use of streets by pedestrians, buses, service vehicles, and cars. Accordingly, a pilot assessment was made of the combined effects of improved enforcement and collection efficiency.

As indicated in Table 6, if the present meter maid force of 55 were doubled; if the average face value of a parking tag remained at \$8.00; and if the collection efficiency increased to 70 per cent, the annual revenue which might be anticipated would approximate \$7.6 million, more than twice the existing amount





Table 6

SUMMARY OF ESTIMATED REVENUE AND COST DATA FOR  
VARIOUS PARKING ENFORCEMENT ALTERNATIVES  
WITHIN BOSTON MUNICIPAL COURT JURISDICTION  
(ILLUSTRATIVE ONLY)

| ITEM                                      | AMOUNT                       |               |               |
|---|------------------------------|---------------|---------------|
|   | Alternative 1 <sup>(1)</sup> | Alternative 2 | Alternative 3 |
| Enforcement Level: <sup>(2)</sup>         |                              |               |               |
| Meter Maids                               | 55                           | 110           | 110           |
| Police Personnel                          | 21                           | 21            | 21            |
| Tow Trucks                                | 17                           | 17            | 17            |
| Cruisers                                  | 2                            | 2             | 2             |
| Annual Costs: <sup>(3)</sup>              |                              |               |               |
| Meter Maids                               | \$ 507,000                   | \$1,014,000   | \$1,014,000   |
| Police Personnel                          | 378,000                      | 378,000       | 378,000       |
| Tow Trucks)                               | 25,500                       | 25,000        | 25,000        |
| Cruisers )                                |                              |               |               |
| Subtotal                                  | \$ 910,500                   | \$1,417,000   | \$1,417,000   |
| Average Face Value Per Tag <sup>(4)</sup> | \$8.00                       | \$8.00        | \$16.00       |
| Potential Revenue <sup>(5)</sup>          |                              |               |               |
| From Meter Maids                          | \$4,344,000                  | \$ 8,688,000  | \$17,376,000  |
| From Police Personnel                     | 2,176,000                    | 2,176,000     | 4,352,000     |
| Subtotal                                  | \$6,520,000                  | \$10,864,000  | \$21,728,000  |
| Collection Efficiency <sup>(6)</sup>      | 49 per cent                  | 70 per cent   | 70 per cent   |
| Annual Revenue                            | \$3,225,000                  | \$7,605,000   | \$15,210,000  |
| Annual Revenue ÷ Costs                    | 3.54                         | 5.37          | 10.75         |

Existing Conditions.  
Estimated by Boston Traffic and Parking Department (BTPD) for 1971 based upon BTPD data.  
Personnel costs do not include fringe benefits, office space, and similar costs. Meter maid costs at \$9,230 per person; police personnel at \$10,500 per person. Costs are based upon 1971 and 1972 data provided by BTPD.  
Tag costs for Alternative 1 and Alternative 2 are as currently estimated by BTPD.  
Potential revenues from meter maids assume that tags issued and revenues obtained are proportional to existing effort and revenues. Current collection efficiency is 49 per cent.



(Alternative 2). If the average value of a tag were increased to \$16.00, the anticipated revenue would be over \$15 million (Alternative 3). If current towing efforts are doubled, the anticipated revenues could be even greater.

Improving Enforcement Efficiency - Tentative ways to improve enforcement efficiency, based on BRA and Department of Traffic and Parking suggestions, include the following:

- (a) The City should establish a Traffic Court, based on the model of the Housing Court, to deal exclusively with parking and minor traffic offenses. This will speed up and centralize the process of ticketing;
- (b) Towing efforts should be intensified. An improved seven day, 24-hour towing program should be implemented. This improved towing program will require about 25-to-30 tow trucks manned by some 80 men. (At present, there are about 17 tow trucks of which about half are in service manned by 16 - 21 men.);
- (c) Towing charges should be substantially increased. Towing costs should be raised from \$12.00 to \$40.00 - \$50.00 per car. A car should be impounded wherever it is found if it has five outstanding parking tickets. (At present, it can only be impounded if it is in a tow zone and has ten outstanding tickets.) Similarly, if a car is towed for a parking violation, it should not be released until all unpaid tickets are paid. (At present, ticket payments are only required if there are ten or more outstanding tickets.);
- (d) Incentives for paying parking tickets should be provided. At present, there is no incentive to pay tickets at an early stage, since neither court costs are levied, nor are tickets increased with time. Some cities have a system where tickets automatically double if not paid within ten days. This could well apply in Boston;



- (e) The City and State should develop bilateral agreements with other states to recover fines of out-of-state violators. For example, the summons could be sent to the other state's registry office and, in turn, to the owner's registered home address. The other state would levy its own costs in addition to the Massachusetts fine. Thus, there would be an incentive for out-of-state violators to pay immediately rather than wait for a summons via their home state, which would involve a fine of, say, 50 per cent higher than if it were paid locally;
- (f) Parking-law enforcement improvement programs should also:
- (1) Double parking fines;
  - (2) Increase meter maids and/or police enforcement personnel (as previously noted); and,
  - (3) More effectively deal with violators by:
    - (a) Computerized notification and recall procedures; and,
    - (b) Preventing unpaid violators from renewing vehicle registrations and/or licenses; and,
- (g) Impacts - The preceding measures would reduce the incidences of illegal parking. However, even with optimum enforcement, some illegal parking would remain. A realistic maximum estimate of the attainable reduction in illegal parking would approximate 40 - 50 per cent. This would mean the peak accumulation of illegal parkers in Downtown Boston would decline from about 5,000 to 2,500.

The above various measures are a logical, prerequisite to providing increases in Downtown off-street parking in exchange for more effective parking enforcement.

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Boston parking freeze;  
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**Stock No./Color**

|       |           |
|-------|-----------|
| 80571 | Black     |
| 80572 | Lt. Blue  |
| 80573 | Dk. Blue  |
| 80578 | Rust      |
| 80579 | Exec. Red |

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